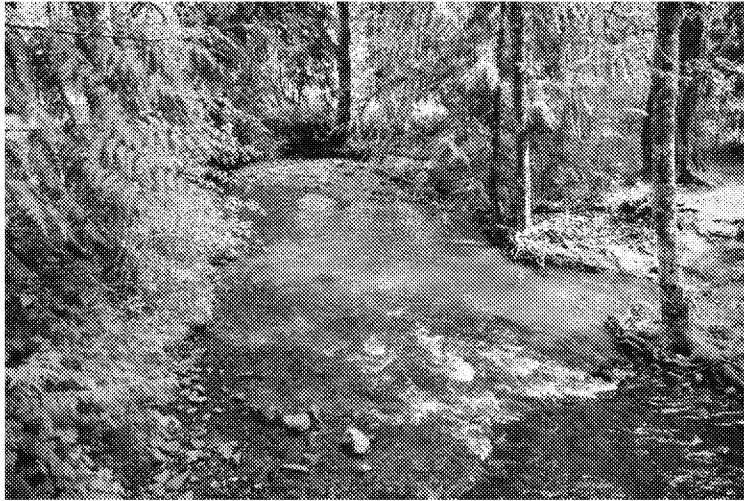


# Water Quality Standards



## Willamette Basin Mercury Variance Rulemaking – Background

November 1, 2018  
DEQ Headquarters

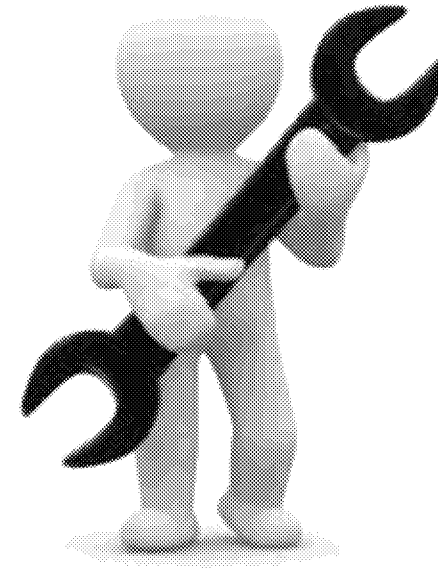
# What is a Variance?



- Tool allowed under Clean Water Act
- Time limited change to water quality standard
- Only applies to regulated discharges
- Does not change the underlying standard

# When is a variance an appropriate tool?

- Designated use cannot be attained
- Dischargers cannot achieve effluent limits based on the criteria
- Progress toward the standard is feasible



# Why develop a mercury MDV?

Mercury Listing  
(OHA advisory)  
(1998)

Human Health  
Criteria  
(2003/2011)

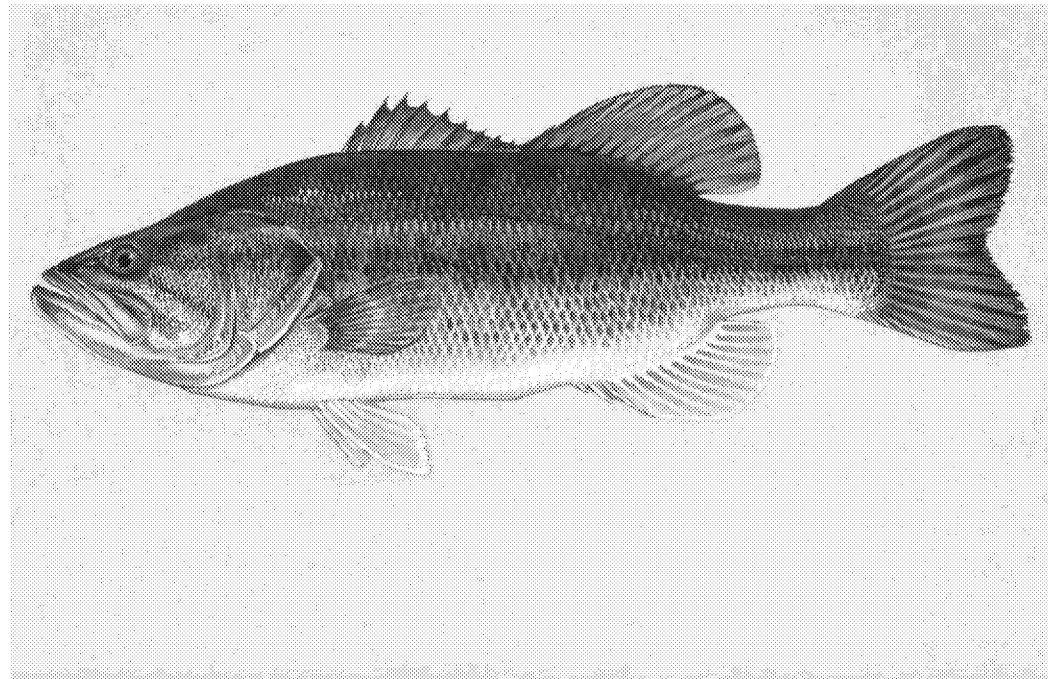
Willamette Basin  
Mercury TMDL  
(2006/2019)

Mercury in  
Willamette fish  
(2008-2010)

Permit Issuance  
Plan  
2019

# Human health criterion (2011)

- 175 g/day fish consumption
- Fish tissue criterion: 0.04 mg/kg methylmercury
- Implementation tools:
  - Variance rules and IMD
  - Other permit tools



# Willamette Basin TMDL (2006; 2019)

- Determine water concentration to meet fish tissue criterion
  - Bioaccumulation factor
  - Translator (dissolved methylmercury to total mercury)
- Wasteload allocations



# Permitting Concerns

- Petition to reconsider CWS permit; include WQBEL for mercury
- 2020 Permit Issuance Plan: renew permits in Willamette Basin
- Unachievable mercury effluent limits



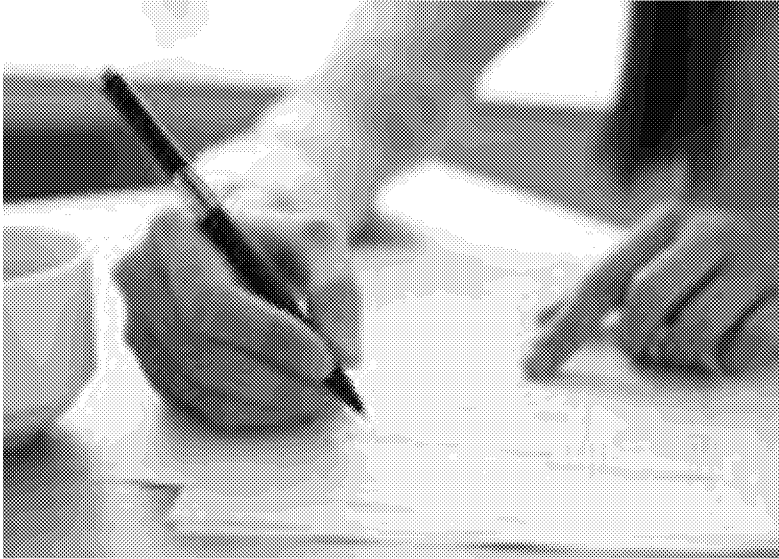
# Mercury in Willamette Basin fish

- Fish tissue concentrations consistently above criterion
- Atmospheric deposition and natural sources
- Transport to waters through runoff, erosion and groundwater
- Point source contributions <5%

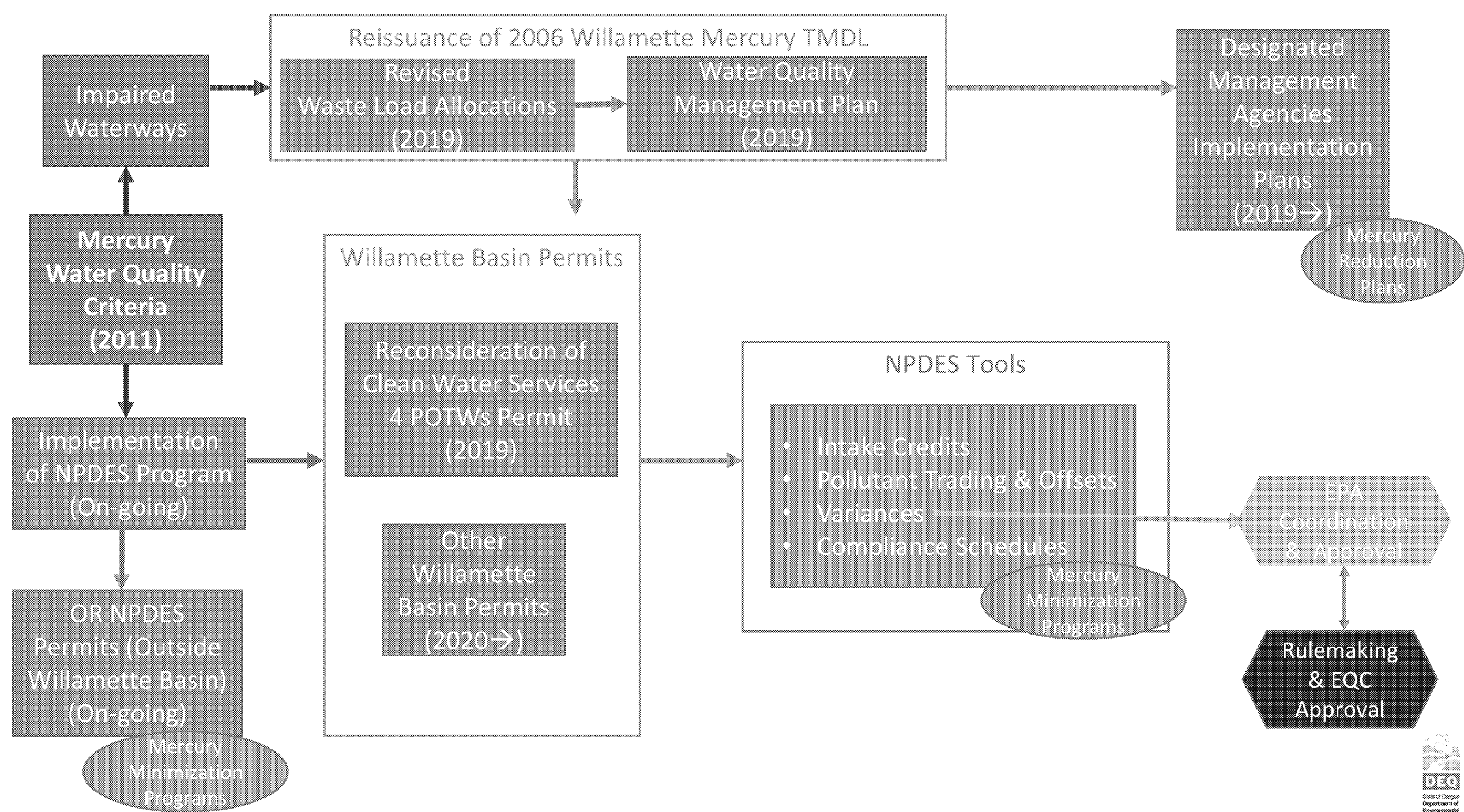




# CWS Individual Variances



- Four WWTFs discharge to the Tualatin
- Criterion not attainable in the river
- Not feasible to achieve WQBELs
- Highest attainable condition for AWWTFs:
  - Optimize current treatment system
  - Mercury minimization program
- Monitor and report
- Re-evaluate in 5 years
- Working with EPA to ensure that analysis and documentation meet federal regs





Questions?

Thoughts?